



The story of trinitite

April 2, 2018



Upon spending time in our History Gallery, visitors will notice an extensive panel devoted to trinitite, so named because it was created during the first atomic test at the Trinity Site in southern New Mexico in July of 1945. Trinitite has also been referred to as atomsite or Alamogordo glass (after a nearby city). Ultimately, it is a glasslike substance that was created from the sand and other materials at the Site during the intense heat of that first atomic test.

Relatively recent research (2005) indicates that, upon explosion, the ground was likely pushed down initially, then rebounded, forcing material into the fireball. As indicated in the display, the ground was vaporized before eventually raining down in the form of trinitite droplets.

While most trinitite is light green (due to the iron that was present in the sand), other samples contain some of the iron from the tower on which the "Gadget" was detonated, and those look black. Yet other slightly red samples contain copper from the electrical wire used in the experiment.

Almost from the moment trinitite was created, people began to collect it.

Then, in 1952, taking any material from the Site was banned, and the remaining trinitite was buried there. Ants still bring up small beads of trinitite to the surface, which, if you visit the <u>Trinity Site</u> during one of the two days it's open to the public each year (the first Saturday in April and in October), you may be tempted to collect, but DON'T. It's considered theft of government property, as signs at the location warn visitors.

That said, plenty of people gathered trinitite prior to the ban, and it is still traded near the Site and elsewhere.

The almost 30 specimens that make up our display give visitors a sense of the variety of trinitite samples that exist and how they were likely formed.

Although other nuclear tests and lightning bolts have created similar glasslike materials under the right conditions, only those created on that day in 1945 are truly trinitite.



Operated by Los Alamos National Security, LLC for the Department of Energy's NNSA

